NR-GIS Data Store Training Exercise: Searching and Downloading

GOAL: To become familiar with the public interface of the NR-GIS Metadata Database and Data Store (Data Store) application by searching and downloading data.

The Natural Resource and GIS Metadata and Data Store application (NR-GIS Data Store) manages and shares natural resource and GIS metadata and data generated by the Natural Resource and Servicewide GIS Programs of the National Park Service. The NR-GIS Data Store provides a location for users, both NPS and public, to discover and download or request data. The NR-GIS Data Store is part of the NPS Metadata System and provides two functions: the NR-GIS Metadata Database and the NR-GIS Data Server. The NR-GIS Metadata Database is a repository of and search engine for metadata describing natural resource and GIS data. The NR-GIS Data Server hosts natural resource and GIS data (documented by the metadata in the NR-GIS Metadata Database) for download.

REQUIRED MATERIALS

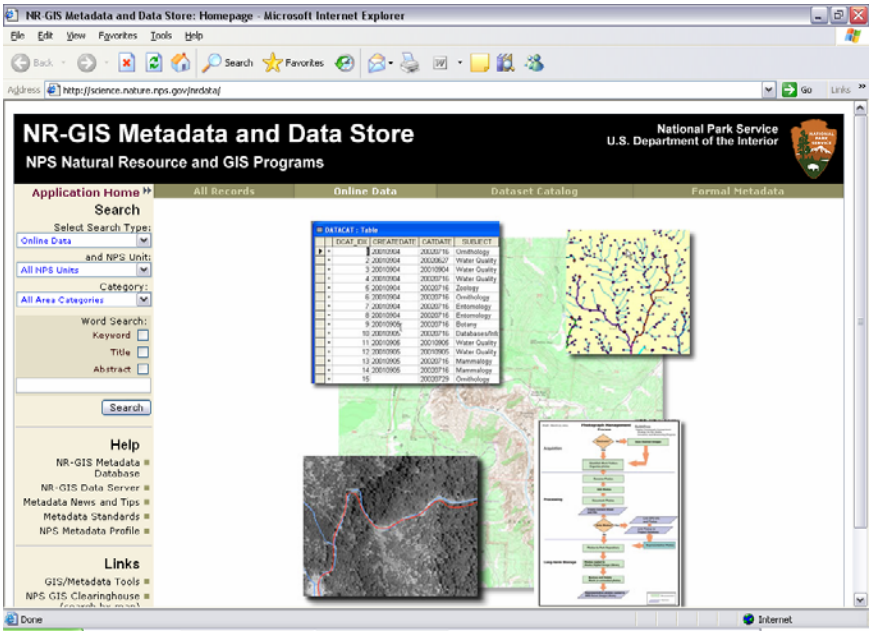
The following materials are needed to complete this exercise.

1. Internet Connection and internet browser application such as Internet Explorer, or Netscape Navigator.

EXERCISE STEPS

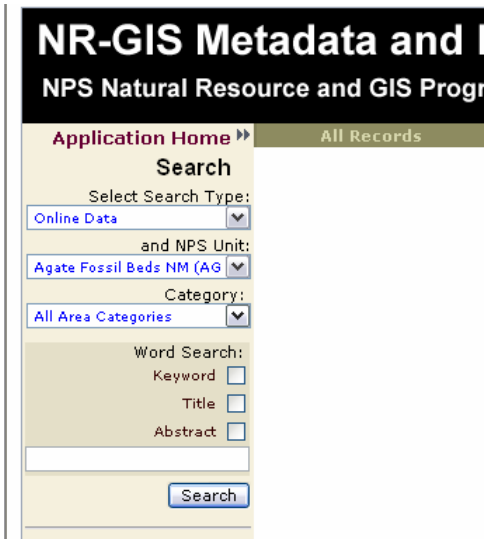
Step 1: Open an internet browser and navigate to the Data Store

http://science.nature.nps.gov/nrdata



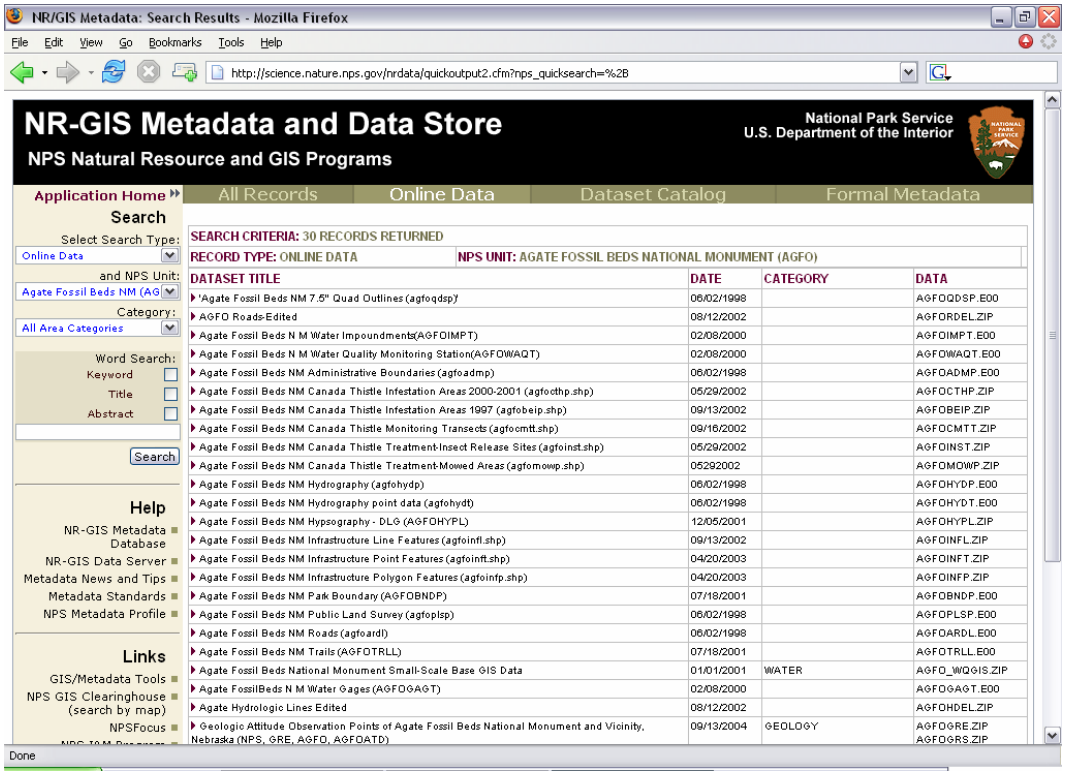
Step 2: Search for Data Available Online

Select **Online Data** as the **Search Type**. Select a park unit to search; this example will use Agate Fossil Beds National Monument. Select **All Area Categories**. Click **Search**.

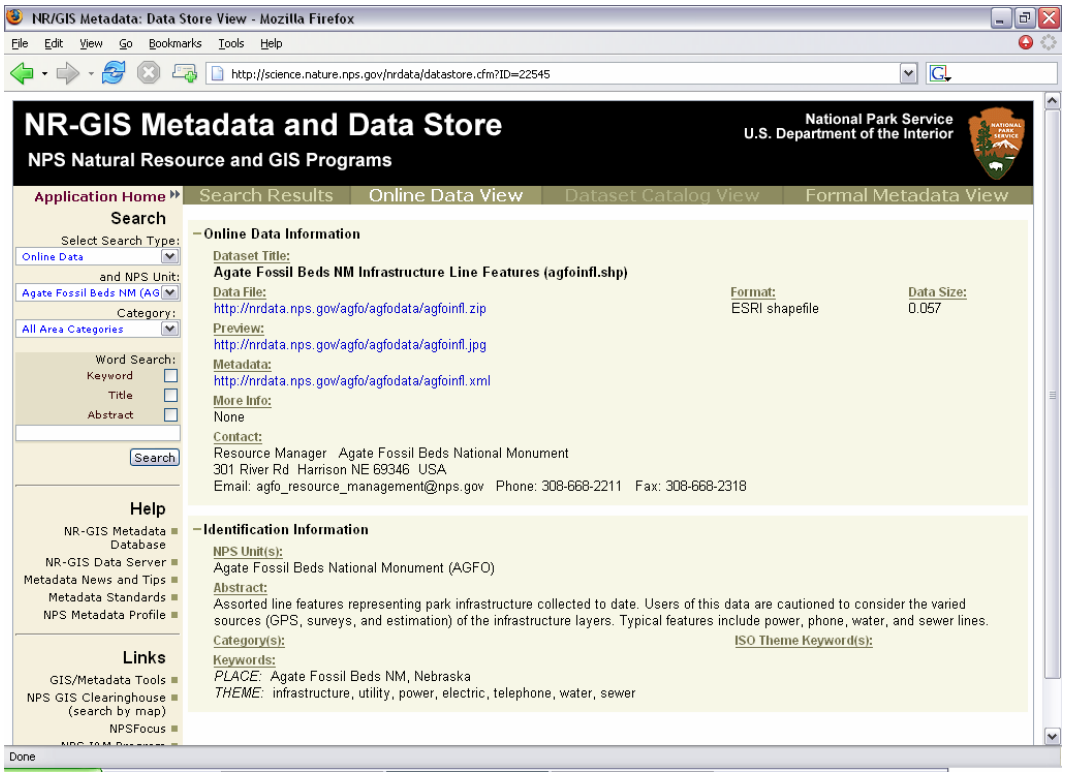


View the **Search Results**. Notice there are 30 records for Agate Fossil Beds that have data to download. Examine the Dataset Title, Date, Category and Data fields. Because the Search Type was Online Data there is a direct link to the downloadable data file in the far right column. Note: When using Internet Explorer to download metadata or data in the Data Store, do not click on the hyperlink directly; instead, right click on the hyperlink and choose **Save Target As** from the context menu.

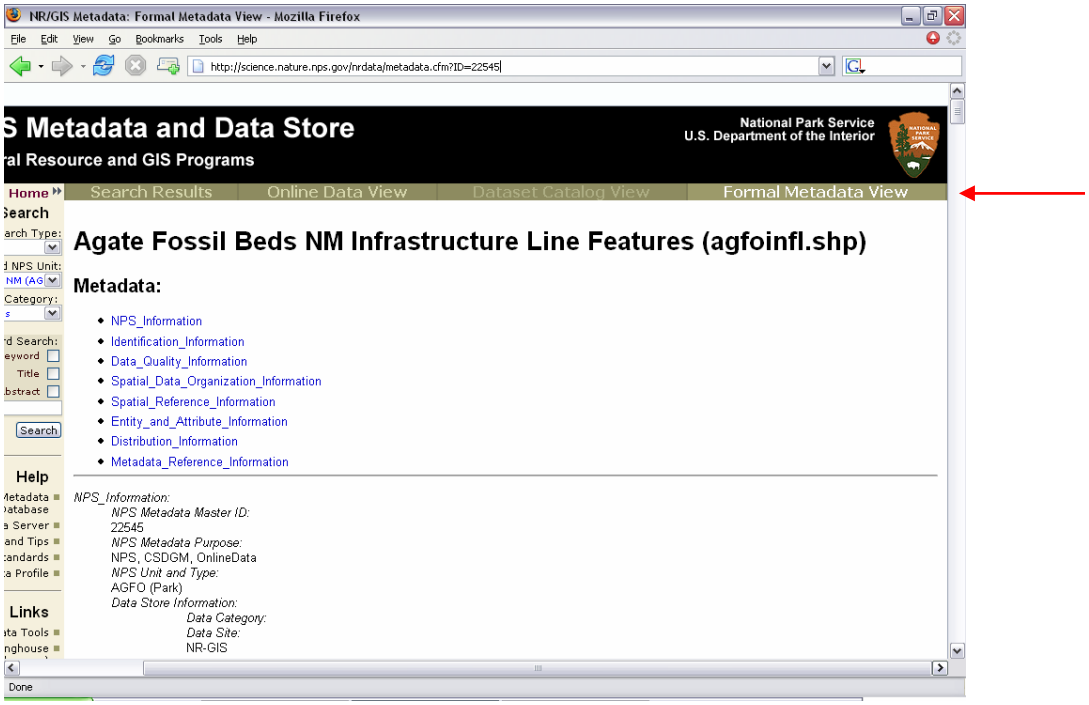
Chose a record to view in more detail by clicking on its title.



Below is the **Online Data View** of Agate Fossil Beds N M Infrastructure Line Features. Notice that there are three hyperlinks directly to the data file, browse graphic and metadata record for download. There is also some basic descriptive information displayed – Contact Information for the dataset, unit information, abstract, and keywords. This view is intended to display the critical descriptive information and links to the data and metadata.

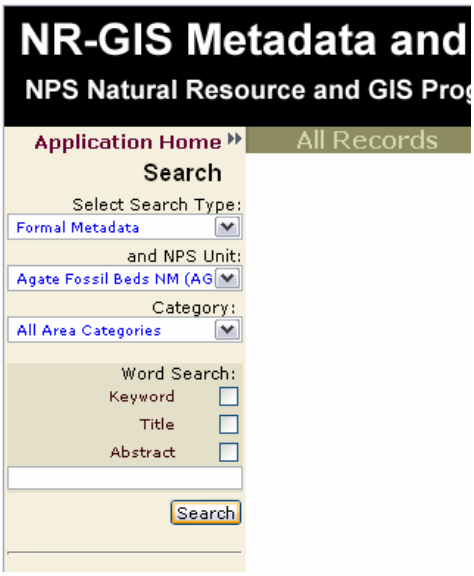


There are 4 tabs at the top of the window, just below the black banner. The **Search Results** tab will display the results of the previous search. The other three tabs represent the different views a record can be displayed in. If a particular view is not available for the record you are viewing the text of that tab will appear darker. For this record, only the **Online Data** and **Formal Metadata** Views are available. This feature is controlled with the Metadata Purpose element of the NPS Profile. Use the **Formal Metadata View** tab at the top of the page to view the entire metadata record in an FGDC classic style. Look at the NPS Metadata Purpose element in the NPS Information section. There are three metadata purposes - NPS, CSDGM and OnlineData. CSDGM allows for the use of the Formal Metadata View.



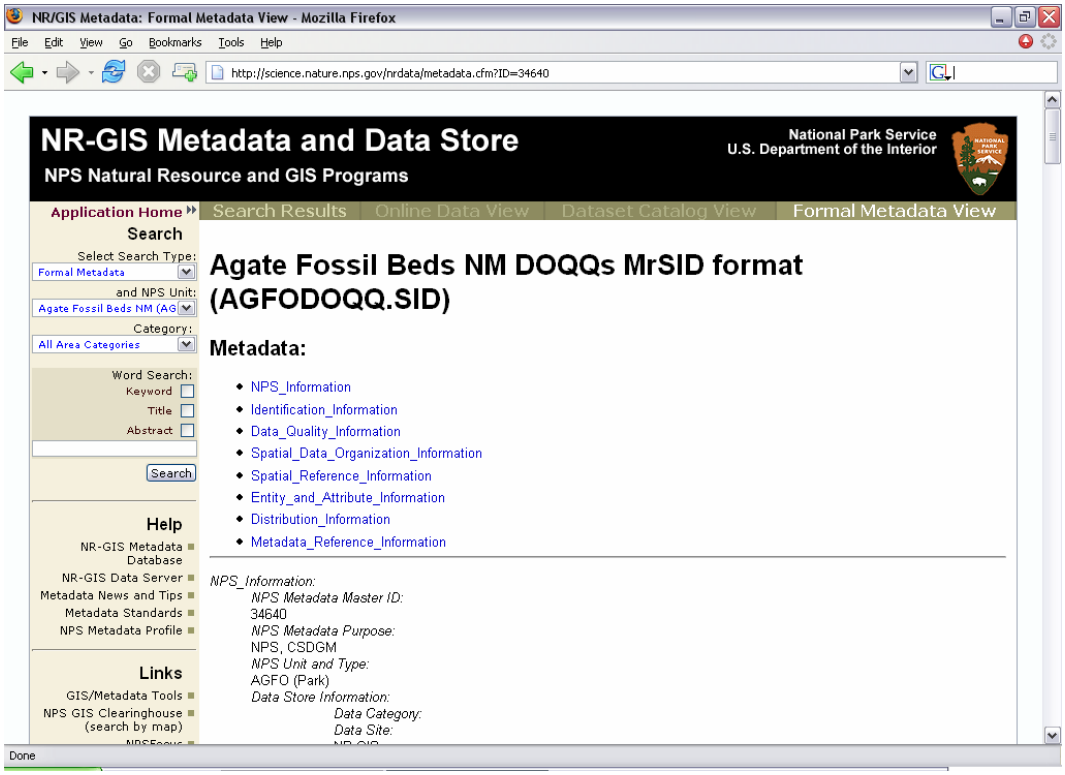
Step 3: Search for Data Available Online and Offline

Select **Formal Metadata** as the **Search Type**. Select a park unit to search; this example will use Agate Fossil Beds National Monument. Search **All Area Categories**. Click **Search**.



View the **Search Results**. Notice there are now 35 records for Agate Fossil Beds. These results include records that have data online, and those that do not have data online. The 5 additional records may have instructions in the Distribution Information section if the data can be requested.

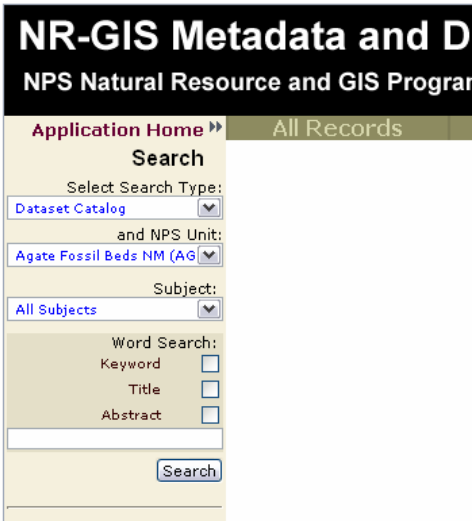
Select the Agate Fossil Beds NM DOQQs MrSID Format record to view the metadata. Notice that only the **Formal Metadata** View tab is active. Look at the NPS Metadata Purpose in the NPS Information section to see that CSDGM is a Metadata Purpose, and not Online Data.



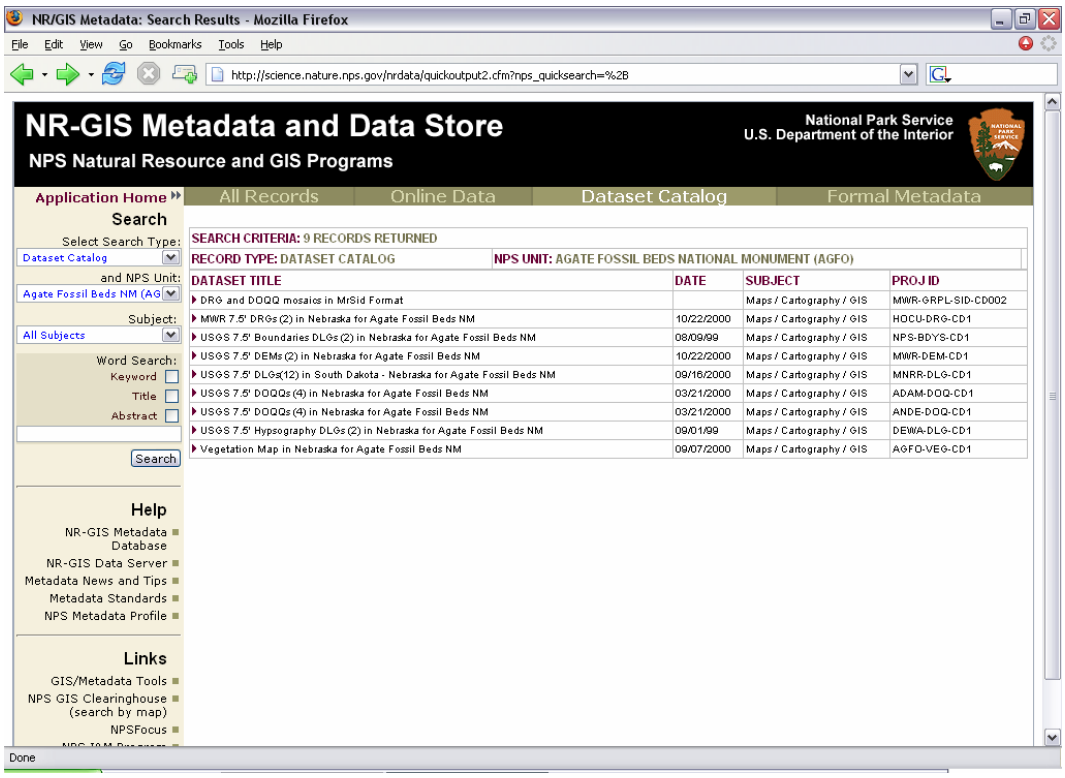
Step 4: Search for Dataset Catalog Records

Dataset Catalog is a MS Access desktop database application that provides a method for quickly documenting non-spatial datasets. Users with Dataset Catalog desktop applications can choose to make their records available on the Data Store. At this time, the Office of Inventory, Monitoring, and Evaluation (formerly Inventory and Monitoring) provides Dataset Catalog records to the Data Store describing the products acquired through the Base Cartography Inventory. These products include USGS Digital Orthophoto Quarter Quadrangles (DOQQ), Digital Line Graphs (DLG), Digital Raster Graphics (DRG), and Digital Elevation Models (DEM).

Search for Dataset Catalog records in Agate Fossil Beds NM.



The search returns 9 records describing DOQQs, DLGs, DRGs, and DEMs available for Agate Fossil Beds NM.



Select a record to view. Notice that only the **Dataset Catalog** View tab is active. This record cannot be viewed with the **Formal Metadata** or **Online Data** Views, because the Dataset Catalog uses a shortened form of the FGDC Metadata Standard, and the data cannot be downloaded. These particular datasets can be requested from the Distributor using the contact information in the record.

Note: The Dataset Catalog functionality of the Data Store is under review, so this information may not be correct at a later date.

Step 5: Additional Search Functionality

The maximum number of records any search will return is 1000. If your search returns more than 1000 records, there is additional search functionality available to reduce the number of records returned. The 3 search types listed above can be used in conjunction with the following additional search parameters to further refine the search results:

1. Set the Search Type to **All Records** if you are unsure what type of record you are looking for.

2. Use the **Category** (Formal Metadata and Online Data) or **Subject** (Dataset Catalog) to further refine the search.

3. Use the **Word Search** to search for specific words in the Keywords, Title or Abstract elements of records.

Additionally, there are two search options in the NPS Unit picklist provide global searching of parks. The first of those is **All NPS Units**. This function, when used in conjunction with a subject, category or keyword search will search in every individual park unit. For example, if you are looking for information on Bighorn Sheep data throughout the National Park Service, using this search would return results from five individual parks. This same data would be obtained when searching any of those individual parks. Try this by searching for data in **All NPS Units** with the keyword **Bighorn Sheep**. You will see that records are returned from Dinosaur National Monument (DINO). Try searching only Dinosaur, without the keyword search. Do you see the records about Bighorn Sheep?

The second search option in the NPS Unit picklist is **NPS-wide Data**. The records returned by this search have a spatial extent that covers all or most units of the National Park Service. These records will not be returned if you do a specific park search, like All NPS Units will. An example is the NPS Park Boundaries, one dataset that contains all park boundaries.

Step 6: Integrated Application Search Functionality

Web application developers and web page content designers have two methods of searching the Data Store as a link directly from their online application or page.

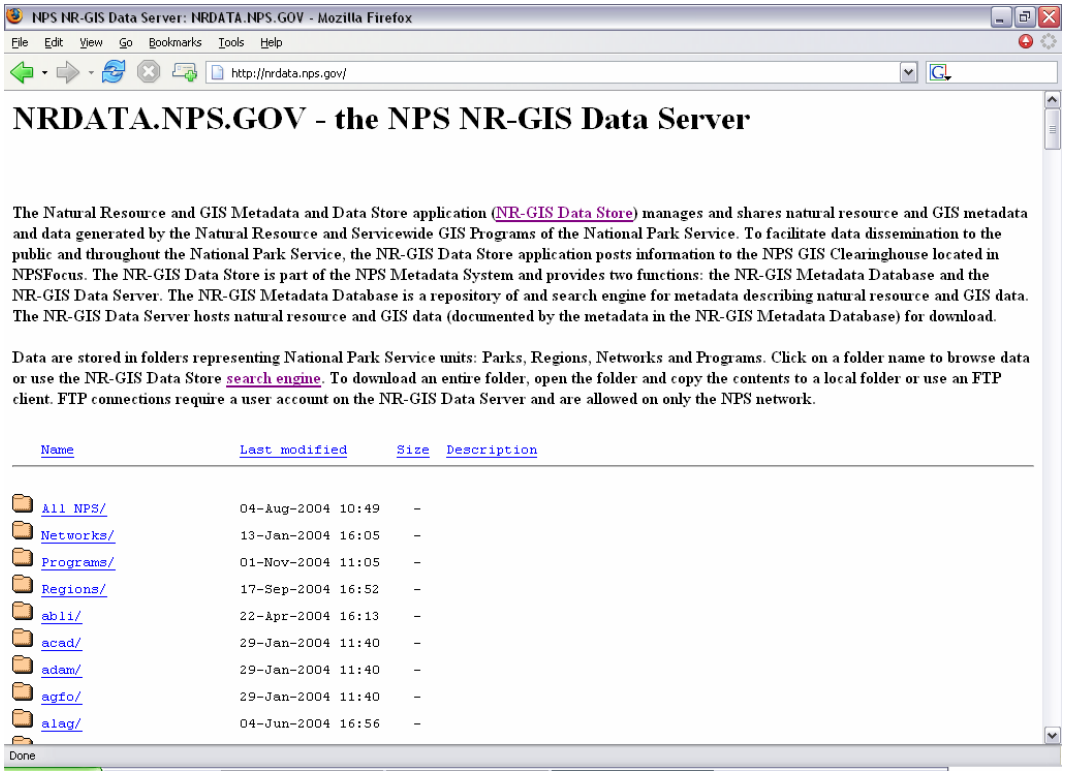
The first is called a Directed Search. Developers can use the following web address to generate a search for a particular park - http://science.nature.nps.gov/nrdata/quickoutput.cfm?Parkcode=XXXX – where the XXXX denotes a user-specified park code. At this time the search returns Online Data records only.

The second search method is not really a search. If a link directly to a specific record is required, the web address in the browser address window can be used as a direct link to that record, using the current view.

Step 7: Data Server Browsing and Downloading

The NR-GIS Data Server is the physical location of the data and metadata files that are uploaded to the Data Store. When downloading data from the Data Store interface, the files are actually coming from the Data Server. The Data Server is available to the public for browsing and downloading, and can be accessed via an internet browser like Internet Explorer or via an FTP client like WS-FTP. Accessing the Data Server via an FTP client will allow for batch downloading of entire park datasets. This functionality is expected to exist in a future release of the Data Store, but for now the only method to do this is via FTP on the Data Server.

Open an internet browser and go to http://nrdata.nps.gov/. You will see the file directory structure of the Data Server. Browse for data in your park. Try downloading a data or metadata file.



CONCLUSION

This exercise reviews the search functionality for the public interface of the Data Store, and browsing on the Data Server. The search functionality is similar on the secure (with login) interface of the Data Store as well.

SOFTWARE REFERENCES

NR-GIS Data Store. http://science.nature.nps.gov/nrdata, https://science1.nature.nps.gov/nrdata.

NR-GIS Data Server. http://nrdata.nps.gov.